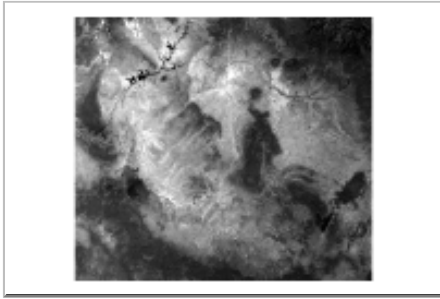# Landsat 7 ETM+ Panchromatic GeoCover Imagery

Data format: Raster Dataset - ERDAS IMAGINE

File or table name: NN_Landsat_ETM_Pan.img

Coordinate system: Universal Transverse Mercator

Theme keywords: GeoCover, Landsat 7, ETM+, Band 8, Panchromatic

Abstract: Landsat 7 ETM+ GeoCover panchromatic band 8 (0.52 - 0.90μm) data which has been orthorectified and processed to a higher quality standard. The GLCF GeoCover collection was produced under contract from NASA by EarthSat Inc. with locational information provided by NGA and USGS. The collection provides global, high resolution, multi-temporal imagery with corrections for distortions resulting from terrain. The data has been reviewed for geolocational and metadata accuracy through NASA Stennis and is free to redistribute. Users can take this imagery and use it to determine vegetation dynamics, urban sprawl, agricultural conversion, or apply it for numerous other uses. This dataset is a mosaic os scenes acquired in May, June, and September 2000 that covers the Navajo Nation.

FGDC and ESRI Metadata:

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information
- Binary Enclosures

Metadata elements shown with blue text are defined in the Federal Geographic Data Committee's (FGDC) *Content Standard for Digital Geospatial Metadata (CSDGM)*. Elements shown with green text are defined in the *ESRI Profile of the CSDGM.* Elements shown with a green asterisk (*) will be automatically updated by ArcCatalog. ArcCatalog adds hints indicating which FGDC elements are mandatory; these are shown with gray text.

Identification Information:

Citation:
Citation information:
Originators: NASA Stennis Space Center's Commercial Remote Sensing Program

Title:
Landsat 7 ETM+ Panchromatic GeoCover Imagery
***File or table name:** NN_Landsat_ETM_Pan.img

Edition: 2000

***Geospatial data presentation form:** remote-sensing image

Publication information:
    Publication place: Stennis Space Center, MS
    Publisher: NASA Stennis Space Center

Other citation details:
    The Global Land Cover Facility (GLCF) is sponsored by the University of Maryland, and is located within the University of Maryland Institute for Advanced Computer Studies (UMIACS). The GLCF is also associated with the UMD Department of Geography. Geocover component data for the mosaic was acquired at http://glcfapp.umiacs.umd.edu:8080/esdi/index.jsp

***Online linkage:**
\\Terra_dc\Navajo\NAUM_NN_Summary\DB\Satellite\NN_Landsat_ETM_Pan.img

Description:
    Abstract:
    Landsat 7 ETM+ GeoCover panchromatic band 8 (0.52 - 0.90μm) data which has been orthorectified and processed to a higher quality standard. The GLCF GeoCover collection was produced under contract from NASA by EarthSat Inc. with locational information provided by NGA and USGS. The collection provides global, high resolution, multi-temporal imagery with corrections for distortions resulting from terrain. The data has been reviewed for geolocational and metadata accuracy through NASA Stennis and is free to redistribute. Users can take this imagery and use it to determine vegetation dynamics, urban sprawl, agricultural conversion, or apply it for numerous other uses. This dataset is a mosaic os scenes acquired in May, June, and September 2000 that covers the Navajo Nation.

    Purpose:
    This dataset was developed to support the U.S. Environmental Protection Agency (USEPA) in its undertaking of an extensive scientific study to determine if abandoned uranium mines (AUM) and related mine features pose a significant risk to human health and the environment, and to identify areas requiring action to reduce risk for the Navajo Nation.

    Supplemental information:
    This is a mosaic of Landsat 7 ETM+ GeoCover panchromatic band 8 (0.52 - 0.90μm) image data. The following are the Path/Row component scenes with the scene acquisition dates:

Path/Rows	Acquired
34/34	08/26/2002
34/35	06/04/2001
34/36	06/04/2001
35/34	09/12/2000
35/35	09/12/2000
35/36	09/12/2000
36/34	05/30/2000
36/35	06/15/2000
36/36	06/02/2001
37/34	06/06/2001
37/35	06/06/2000
37/36	06/06/2000
38/34	07/18/2000

***Language of dataset:** en

Time period of content:
    Time period information:
        Range of dates/times:
            Beginning date: 5/30/2000
            Ending date: 08/26/2002

    Currentness reference:
        ground condition

Status:
    Progress: Complete
    Maintenance and update frequency: None planned

Spatial domain:
    Bounding coordinates:
        ***West bounding coordinate:** -112.536367
        ***East bounding coordinate:** -106.963995
        ***North bounding coordinate:** 37.947654
        ***South bounding coordinate:** 33.979067

    Local bounding coordinates:
        ***Left bounding coordinate:** 364992.875000
        ***Right bounding coordinate:** 855007.625000
        ***Top bounding coordinate:** 4200007.125000
        ***Bottom bounding coordinate:** 3766493.625000

Keywords:
    Theme:
        Theme keywords: GeoCover, Landsat 7, ETM+, Band 8, Panchromatic
        Theme keyword thesaurus: None

    Place:
        Place keywords: Navajo Nation, Arizona, Colorado, New Mexico, Utah, United States
        Place keyword thesaurus: None

Access constraints: None
Use constraints:
    This Landsat 7 ETM+ GeoCover data presents only the 14.25 meter band 8 panchromatic dataset. This dataset is a mosaic that covers only the Northern Abandoned Uranium (AUM) Region, including the Navajo Nation.

    Use of this data generally requires computer workstations with ESRI's Arc/Info (8.x or above), ArcGIS (8.x or above), or ArcView (3.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

    The data are provided "as-is," without warranty of any kind, either express or implied.

    These data have been compiled as part of a desktop project to collect existing spatial data to support the study of Navajo abandoned uranium mines. No field verifications were undertaken as part of this desktop study.

Point of contact:
    Contact information:

Contact organization primary:
Contact organization: U. S. Environmental Protection Agency, Region 9, Superfund Program

Contact address:
Address type: mailing and physical address
Address:
75 Hawthorne St (SFD 8-2)
City: San Francisco
State or province: CA
Postal code: 94105
Country: USA

Contact voice telephone: 415-972-3167

Data set credit:
The Congress of the United States provided NASA with funding to operate a Science Data Purchase, through the auspices of the NASA Stennis Space Center's Commercial Remote Sensing Program, now part of their Earth Science Applications Directorate. NASA Stennis solicited commercial remote sensing companies for potential imagery products of high science integrity. MDA Federal Inc. was awarded a contract to generate the Landsat GeoCover product as a component of the Science Data Purchase. MDA Federal was provided access to the large pool of Landsat data necessary for the product, which they then processed until they had a collection of scenes covering the land surface of the globe. These scenes were orthorectified by MDA Federal, and the result was then validated by NASA Stennis.

Security information:
Security classification system: None

*__Native dataset format:__ Raster Dataset
*__Native data set environment:__
Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.1.0.780

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Data Quality Information:

Attribute accuracy:
Attribute accuracy report:
NA

Logical consistency report:
None

Completeness report:
This Landsat 7 ETM+ GeoCover data presents only the 15 meter band panchromatic dataset. This dataset is a mosaic that covers only the Northern Abandoned Uranium (AUM) Region, including the Navajo Nation.

Positional accuracy:
Horizontal positional accuracy:
Horizontal positional accuracy report:
14.25m pixel size with a 50m RMSe (Root Mean Square error)

Lineage:
    Source information:
        Source scale denominator: NA
        Type of source media: FTP
        Source citation abbreviation:
            GeoCover
        Source contribution:
            Landsat 7 ETM+ GeoCover panchromatic band 8 (0.52 - 0.90µm) data was acauired from UMIACS at http://glcfapp.umiacs.umd.edu:8080/esdi/index.jsp

    Process step:
    Process description:
        Path/Rows 34/34-36, 35,34-36, 36/34-36, 37/34-36, and 38/34 were dwonloaded from UMIACS. ERDAS Imagine 8.7 was used to mosaic the band 8 panchromatic scenes into one large image mosaic.

    Process software and version: ERDAS Imagine 8.7
    Process date: February 2006

    Source used citation abbreviation:
        GeoCover

    Process contact:
        Contact information:
            Contact organization primary:
                Contact organization: TerraSpectra Geomatics

            Contact address:
                Address type: mailing and physical address
                Address:
                    2700 E Sunset Rd, Ste A-10
                City: Las Vegas
                State or province: NV
                Postal code: 89120
                Country: USA

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Spatial Data Organization Information:

    ***Direct spatial reference method:** Raster

    Raster object information:
        ***Image format:** ERDAS IMAGINE
        ***Number of bands:** 1

        ***Row count:** 30422
        ***Column count:** 34387
        ***Vertical count:** 1

        ***Cell size X direction:** 14.250000
        ***Cell size Y direction:** 14.250000

        ***Bits per pixel:** 8

*__Pyramid layers:__ TRUE
*__Image colormap:__ FALSE
*__Compression type:__ None

*__Raster object type:__ Pixel
*__Raster display type:__ pixel codes
*__Raster origin:__ Upper Left

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Spatial Reference Information:

__Horizontal coordinate system definition:__
__Coordinate system name:__
*__Projected coordinate system name:__ NAD_1983_UTM_Zone_12N
*__Geographic coordinate system name:__ GCS_North_American_1983

__Planar:__
__Grid coordinate system:__
*__Grid coordinate system name:__ Universal Transverse Mercator
__Universal Transverse Mercator:__
*__UTM zone number:__ 12
__Transverse mercator:__
*__Scale factor at central meridian:__ 0.999600
*__Longitude of central meridian:__ -111.000000
*__Latitude of projection origin:__ 0.000000
*__False easting:__ 500000.000000
*__False northing:__ 0.000000

__Planar coordinate information:__
*__Planar coordinate encoding method:__ row and column
__Coordinate representation:__
*__Abscissa resolution:__ 14.250000
*__Ordinate resolution:__ 14.250000
*__Planar distance units:__ meters

__Geodetic model:__
*__Horizontal datum name:__ North American Datum of 1983
*__Ellipsoid name:__ Geodetic Reference System 80
*__Semi-major axis:__ 6378137.000000
*__Denominator of flattening ratio:__ 298.257222

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Entity and Attribute Information:

__Detailed description:__
*__Name:__ Layer_1

__Entity type:__
*__Entity type label:__ Layer_1
*__Entity type type:__ Table
*__Entity type count:__ 231

Attribute:
* **Attribute label:** ObjectID
* **Attribute alias:** ObjectID
* **Attribute definition:**
  Internal feature number.
* **Attribute definition source:**
  ESRI

* **Attribute type:** OID
* **Attribute width:** 4
* **Attribute precision:** 0
* **Attribute scale:** 0

Attribute domain values:
* **Unrepresentable domain:**
  Sequential unique whole numbers that are automatically generated.

Attribute:
* **Attribute label:** Value
* **Attribute alias:** Value

* **Attribute type:** Integer
* **Attribute width:** 0
* **Attribute precision:** 0
* **Attribute scale:** 0

Attribute:
* **Attribute label:** Count
* **Attribute alias:** Count

* **Attribute type:** Double
* **Attribute width:** 0
* **Attribute precision:** 0
* **Attribute scale:** 0

Overview description:
Entity and attribute overview:
Landsat 7 ETM+ GeoCover panchromatic band 8 (0.52 - 0.90µm).

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Distribution Information:

Distributor:
Contact information:
Contact organization primary:
Contact organization: U. S. Environmental Protection Agency, Region 9, Superfund Records Center

Contact address:
Address type: mailing address
Address:
95 Hawthorne St (SFD-7C)

City: San Francisco
State or province: CA
Postal code: 94105
Country: USA

Contact voice telephone: 415-536-2033

Resource description: Downloadable Data

Distribution liability:
Although these data have been processed successfully on a computer system for the USEPA, no warranty expressed or implied is made by the USEPA or its contractors regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. No responsibility is assumed by USEPA or its contractors in the use of these data.

Standard order process:
Digital form:
Digital transfer information:
***Transfer size:** 1088.124
***Dataset size:** 1088.124

Custom order process:
Contact the USEPA for a custom order.
Technical prerequisites:
Use of this data generally requires computer workstations with ESRI's Arc/Info (8.x or above), ArcGIS (8.x or above), or ArcView (3.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

Available time period:
Time period information:
Single date/time:

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Metadata Reference Information:

***Metadata date:** 20070730

***Language of metadata:** en

Metadata contact:
Contact information:
Contact person primary:
Contact person: Andrew Bain
Contact organization: U. S. Environmental Protection Agency, Region 9, Superfund Program
Contact position: Project Manager

Contact address:
Address type: mailing and physical address
Address:
75 Hawthorne St (SFD 8-2)
City: San Francisco
State or province: CA

Postal code: 94105
Country: USA

Contact voice telephone: 415-972-3167

*__Metadata standard name:__ FGDC Content Standards for Digital Geospatial Metadata
*__Metadata standard version:__ FGDC-STD-001-1998
*__Metadata time convention:__ local time

Metadata access constraints: None.
Metadata use constraints:
 None.

Metadata security information:
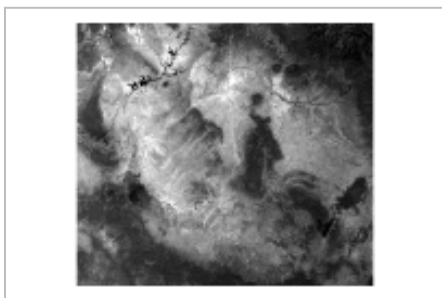 **Metadata security classification system:** None

Metadata extensions:
 *__Online linkage:__ http://www.esri.com/metadata/esriprof80.html
 *__Profile name:__ ESRI Metadata Profile

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Binary Enclosures:

Thumbnail:
 Enclosure type: Picture

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